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POUSSIN AND HIS WORKS.

NOAH'S SACRIFICE. FROM THE PICTURE BY POUSSIN.

POUSSIN AND HIS WORKS.

III.

We left Poussin at Paris, enjoying the well-merited honours which the French court bestowed upon him. Other distinctions were yet in store for him. The king, wishing to mark in a particular manner his esteem for the artist, appointed him his chief painter, the superintendent of all his galleries, and the director of the restorations of the royal palaces. In addition to his other works, he was required to furnish eight large cartoons, which were to be executed in tapestry for the royal apartments. To facilitate the prompt execution of this work, Poussin was permitted to repeat on a larger scale some of his compositions already known, such as "The Manna in the Desert," and "The Striking of the Rock." He was also commissioned to adorn the great gallery of the Louvre, and to decorate that vast building according to his own taste.

Although the greater part of these projects could not be executed by one man, however great his industry and skilful his assistants, yet the presence of Poussin at Paris was highly beneficial to French art. He furnished a large number of plans for restorations and decorations; he introduced casts of some of the most beautiful works of antiquity, which seemed to him to be alone worthy of serving as models for sculpture and architecture; he proposed to cast in bronze the colossal statues of Monte Cavallo, and to place them at the gate of the Louvre. In short, all that the liberal genius of Francis the First had conceived, Poussin was willing to execute. An artist of repute was sent to Rome to carry out the suggestions of Poussin, and in a short time moulds, taken from some of the finest works of sculpture and architecture in Rome, were sent to Paris, and careful copies of some of the most celebrated pictures in Italy were executed.

But by degrees, the enthusiasm which the presence and plans of Poussin had excited grew cold; as it was natural it should do, when his patrons had no higher feeling than vanity to gratify. The favours which he had already received excited the envy of his rivals in art, and they constantly opposed his designs and thwarted his plans. His time was wasted in defending himself to his patrons, who could scarcely appreciate the merits of the questions at issue; and who did not hesitate to waste his time in employments which were beneath him. He was ordered to design frontispieces for the books printed at the royal printing-office. The first that he furnished was that to the Bible, printed early in 1642, commonly known by the name of *The Bible of Sixtus the Fifth;* and he afterwards designed those for the *Horace* and *Virgil*, printed about the same time. The following extract from one of his letters to Del Pozzo, dated the 20th of September, 1641, will best show the nature of his employments. He says:—

I am labouring without intermission, sometimes at one thing, and sometimes at another. I should do this willingly, but that they hurry me in things that require time and thought. I assure you, that if I stay long in this country, I must turn dauber like the rest here. As to study and observation, either of the antique or of anything else, they are unknown, and whoever wishes to study or to excel must go far from hence. The stuccoes and painting of the great gallery are begun after my designs, but very little to my satisfaction, because I can get no one to second me, although I make drawings both on a large and a small scale for them. I have put "The Last Supper" in its place, that is, in the chapel of St. Germains, and it succeeds very well. I am now at work upon the picture for the noviciate of the Jesuits; it is very large, containing fourteen figures larger than nature, and this they want me to finish in two months.

This picture was finished at the prescribed time, and the admiration it met with was the first signal for all who envied Poussin's good fortune and reputation, to commence those persecutions against him which rendered his abode in Paris disagreeable, and at length drove him from it. Vouet and his party found themselves neglected, and they brought all kinds of accusations against Poussin respecting his style of painting and his method of directing the public works entrusted to him; and although the king, the queen, and Cardinal Richelieu, continued to be friendly, yet Poussin was evidently disgusted with the constant turmoil in which his opponents contrived to keep him, as well as the employment which his patrons gave him. In another of his letters he says:—"The employment given me is not so important, but that they take me from it to superintend new designs for tapestry. I wish they would give me something to do where lofty and noble designs could be employed; but, to say the truth, there is nothing here that deserves staying long for." Again, in another letter, he writes:—"They employ me for ever in trifles, such as frontispieces for books; designs for ornamental cabinets; chimney-pieces, bindings of books, and other nonsense."

In the midst of all this dissatisfaction, Poussin's thoughts turned fondly towards Rome, and he became at length so impatient to return to his family, that he applied for leave of absence, which he obtained on condition that he returned as soon as he had put his affairs in order. Before quitting Paris, he executed his picture in which Time liberates Truth from the attacks of Envy, Hatred, and Malevolence, a memorial of the vexatious contests in which he had been engaged, and of his sense of the verdict of posterity in his favour.

After an absence of two years, Poussin again entered Rome, towards the end of 1642. His return was welcomed as a sort of triumph. The favours which he had received from the French court seemed in the estimation of many to exalt his talents; every one wished to see him, to congratulate him on his brilliant success; he alone was the only one not dazzled by the favours of fortune; that same philosophy which formed the basis of his character, saved him from indulging in pride or vanity, which perhaps every one but himself would have excused. He found in his humble home an affectionate wife; he enjoyed the esteem of a few sincere friends, and this state of happiness, contrasted with the disagreeable cabals of the court, rendered him averse to return to Paris.

His first employment after his return was to fulfil the engagements he had contracted in France. He finished the "Sacraments" for M. de Chantelou, a series of pictures which, for a long time, formed one of the principal attractions of the Orleans collection; they were purchased by the late Duke of Bridgewater, for the sum of four thousand nine hundred guineas, and are now in the collection of Lord Francis Egerton. Poussin also painted at this time his beautiful picture of "Rebecca at the Well," which is full of truth, grace, and beauty.

It was not long after Poussin's return to Rome that Louis the Thirteenth and the Cardinal de Richelieu died; and M. Desnoyers, his chief patron, having retired from court, the public works in which Poussin had been engaged were superseded by political troubles; and feeling himself thus released from all his engagements, Poussin no longer thought of returning to Paris.

Being free from all anxiety, he resumed his simple frugal mode of life, and devoted all his time to the exercise of his art. He had just quitted the frontiers of ambition and of fortune, but such a man could not sink into obscurity: his reputation shone with greater lustre in his modest dwelling at Rome, than under the gilded roofs of the Louvre. There, during the long period of three-and-twenty years, he continued to produce his admirable works, finishing them with the greatest care, and never allowing them to leave his hands until he was fully satisfied with them.

In appreciating the value of his own pictures he displayed singular disinterestedness. He always fixed the price, and marked it at the back of his picture, and if

the purchaser, finding it too moderate, sent a larger sum, the surplus was always returned. He was also in the habit of accompanying each picture, when he sent it home, by a letter, explaining his reasons for the particular manner in which he had treated the subject, thus answering beforehand whatever criticism it might meet with.

Although he worked with great assiduity, he could scarcely supply the demand for his pictures. He often refused to accept commissions for pictures unless a very distant time (often several years) were named for their completion. His mode of life was very regular, and so simple, that he almost dispensed with domestics. The Cardinal Massimi having paid him a visit, remained with him till dark. Poussin having no footman, took a lamp to light his guest to his carriage, who said to him, "I am sorry for you, M. Poussin—you have no footman." "And I," said Poussin, "am still more sorry for your excellency, because you have so many." On another occasion, a person of quality having shown him a picture of his own painting, Poussin said to him, "Ah! my lord, you only want a little poverty to become a good painter."

The judicious distribution of his time was one of the main causes of Poussin's success, and of the very large number of carefully finished works that he left behind him. He was accustomed to rise early, and to walk for an hour or two among the most picturesque parts of Rome and its environs; but he generally limited his walk to the terrace of the Trinità de' Monti, and to the gardens of the Medicis near his house. Then shutting himself up in his study he worked till mid-day. After dinner he painted again during some hours. He seldom admitted any one to his painting room. In the evening his friends used to wait for him on the terrace, and thus surrounded by such men as Claude Lorraine, Gaspar Poussin, Charles Le Brun, and other painters of eminence, and by noble Romans who courted his society, and followed also by strangers who, attracted by his reputation, were curious to see him and to converse with him, he chatted friendlily with every body, and listened willingly to the remarks of others. His own discourse, though directed chiefly to grave and philosophical subjects, was received with attention and respect; he often spoke of the principles of his art with so much clearness, that they were appreciated even by those who were not artists. He had none of the pretensions of a professor; whatever he said was said naturally, and apparently without premeditation; but his words were well chosen, and always to the purpose. He was asked one day what was the chief benefit he had derived from his extensive reading, and what he regarded as his best knowledge? "How to live well with all the world," was his answer.

Poussin was of opinion that painting and sculpture were but one and the same art, and differed only in the means of execution. He has left proofs of this assertion in some figures of Mercury which he modelled, to adorn the country house of M. Fouquet, by which it appears probable that he would have been as excellent as a sculptor, as he was great as a painter, if he had overcome the mechanical difficulties of the art. This talent was of the greatest assistance to him in the execution of his pictures.

The genius of Poussin seems to have gained vigour with age. Nearly his last works, which were begun in 1660, and sent to Paris in 1664, were the four pictures allegorical of the seasons, painted for the Duc de Richelieu. Early in the following year he was slightly affected by palsy, and the only picture of figures that he painted was the "Samaritan Woman at the Well," which he sent to M. de Chantelou with a note, in which he says, "This is my last work; I have already one foot in the grave."

Early in 1665 his wife died. He had already become paralytic, and the loss of one who had so long been his most affectionate companion and friend, seems to have hastened his death. When he wrote to M. de Chantelou to apprise him of his great loss, he was so feeble that he was occupied with his letter during the intervals of ten days. Some of his letters were written by his brother-in-law, from his dictation. From one of them, dated the 28th of October, it appears that he was suffering from the progress of a very painful disease. His understanding, however, continued unimpaired until the 19th of November, when he expired about mid-day, in the seventy-second year of his age.

By his will, made two months before his death, he forbade any unnecessary expense at his funeral, and disposed of his property, which amounted to about fifty thousand crowns, as follows:—one thousand crowns to the relations of his wife; the like sum to his niece, Frances Le Tellier, residing at Andelys; and he appointed his nephew, Jean Le Tellier, residuary legatee.

Never perhaps was a private man more deeply regretted than Nicholas Poussin. The tempered vivacity of his conversation, the affectionate regard with which he treated his friends and relations, the modesty which prevented his giving offence, and the easy unostentatious manner in which he loved to discourse upon his art, rendered his society invaluable, both as a man and a painter. His death caused a general sensation in Rome, his adopted country. All the friends of art assembled to accompany his remains to the church of San Lorenzo, in Lucina, where he was buried.

In his person Poussin was tall and well proportioned, and of good constitution. His complexion was olive, his hair black, but it became very gray towards the end of his life; his eyes were blue, his nose rather long, his forehead large, and his look both dignified and modest.

The character of Poussin as a painter is given by Reynolds, who, after describing the style of Rubens*, says:—

Opposed to this florid, careless, loose, and inaccurate style, that of the simple, careful, pure, and correct style of Poussin, seems to be a complete contrast. Yet, however opposite their characters, in one thing they agreed; both of them always preserving a perfect correspondence between all the parts of their respective manners, insomuch that it may be doubted whether any alteration of what is considered as defective in either, would not destroy the effect of the whole.

Poussin lived and conversed with the ancient statues so long, that he may be said to have been better acquainted with them than with the people who were about him. I have often thought that he carried his veneration for them so far, as to wish to give his works the air of ancient paintings. It is certain that he copied some of the antique paintings, particularly "The Marriage" in the Aldobrandini Palace at Rome, which I believe to be the best relique of those remote ages that has yet been found.

No works of any modern have so much the air of antique painting as those of Poussin. His best performances have a remarkable dryness of manner, which, though by no means to be recommended for imitation, yet seems perfectly correspondent to that ancient simplicity which distinguishes his style. Like Polidero, he studied the ancients so much that he acquired a habit of thinking in their way, and seemed to know perfectly the actions and gestures they would use on every occasion.

Poussin in the latter part of his life changed from his dry manner to one much softer and richer, where there is a greater union between the figures and ground, as in "The Seven Sacraments" in the Duke of Orleans' collection; but neither these, nor any of his other pictures in this manner, are at all comparable to many in his dry manner which we have in England.

The favourite subjects of Poussin were ancient fables; and no painter was ever better qualified to paint such subjects, not only from his being eminently skilled in the knowledge of the ceremonies, customs, and habits, of the ancients, but from his being so well acquainted with the different characters which those who invented them gave to their allegorical figures. Though Rubens has shown great fancy in his Satyrs, Sylenuses, and Fauns, yet they are not that distinct separate class of beings which is carefully exhibited by the ancients, and by Poussin. Certainly when

* A notice of Rubens and his Works will be found in the *Saturday Magazine*, Vol. XX., pp. 77, 193, and 217.

such objects of antiquity are represented, nothing in the picture ought to remind us of modern times. The mind is thrown back into antiquity, and nothing ought to be introduced that may tend to awaken it from the illusion.

Poussin seemed to think that the style and the language in which such stories are told, is not the worse for preserving some relish of the old way of painting, which seemed to give a general uniformity to the whole, so that the mind was thrown back into antiquity, not only by the subject, but by the execution.

If Poussin, in imitation of the ancients, represents Apollo driving his chariot out of the sea, by way of representing the sun rising, if he personifies lakes and rivers, it is nowise offensive in him, but seems perfectly of a piece with the general air of the picture. On the contrary, if the figures which people his pictures had a modern air or countenance, if they appeared like our countrymen, if the draperies were like cloth or silk of our manufacture, if the landscape had the appearance of a modern view, how ridiculous would Apollo appear instead of the sun; an old man, or a nymph, with an urn, to represent a river or a lake.

Another eminent but severe critic thus notices Poussin:—

Though Poussin abstracted the theory of his proportions from the antique, (says Fuseli,) he is seldom uniform and pure in his style of design; ideal only in parts, and oftener so in female than in male characters, he supplies, like Pietro Testa, antique heads and torsos with limbs and extremities transcribed from the model. As a colourist he was extremely unequal. In "The Deluge," and "The Plague of the Philistines," he transfused the very hues of the elements whose ravages he represented, whilst numbers of his other pictures are deformed by crudity and patches. The excellence of Poussin in landscape is universally allowed, and when it is the chief object of his picture, precludes all censure; but considered as the scene or background of an historical subject, the care with which he executed it, the predilection which he had for it, often made him give it an importance which it ought not to have; it divides our attention, and from an accessory, becomes a principal part.

As star that shines dependent upon star
Is to the sky while we look up in love;
As to the deep fair ships which though they move
Seem fixed to eyes that watch them from afar;
As to the sandy desert fountains are,
With palm-groves shaded at wide intervals,
Whose fruit around the sun-burnt native falls
Of roving tired or desultory war;—
Such to this British Isle her Christian fanes,
Each linked to each for kindred services;
Her spires, her steeple-towers with glittering vanes
Far-kenned, her chapels lurking among trees,
Where a few villagers on bended knees
Find solace which a busy world disdains.

WORDSWORTH.

THE best defence is not to give offence:
The only panoply is innocence.—*Guesses at Truth.*

MANY men have been heroic in exploit; few in endurance. Pride tells them that, to act, they must be doing something. And yet the greatest action of the whole history of the whole world is the Passion of Christ; an action almost as much surpassing all others in its heroic magnanimity, as it surpasses them in the extent, the momentousness of its consequences.—*Guesses at Truth.*

THE STALE-MATE AT CHESS.

IN selecting the games which illustrate our Easy Lessons in Chess, we have preferred to give such as are decided in favour of one of the players, rather than drawn games, which, however instructive to the advanced player, are not so interesting to the young student. A similar rule has been observed in respect of the Chess Problems: those in which one of the players is required to draw the game within a given number of moves being of less general interest, but of a far more refined and difficult nature than problems in which a check-mate is to be achieved.

A *drawn* game is one in which neither player can check-mate the other; and there are various methods in which a game may thus be drawn. For example, when the position is such that an alteration in it by either party would be dangerous or fatal, and therefore both players persist in making the same move. So also a game is drawn when one of the players has what is called a "perpetual check;" that is, when not being able to give check-mate, he can nevertheless check the adverse king at every move, without his being able to escape therefrom. In the third place, a game is drawn when neither player has a mating power; thus K. and B. or K. and Kt. cannot alone mate the adverse K. So also if one or both of the players have mating power but not the means of using it; or the stronger party have mating power, and not know how to use it: in such cases the game may be declared drawn, subject, however, to the condition made in the Twenty-second Law*.

Lastly, a game may be drawn by what is called *stale-mate;* that is, one of the parties having to move has no piece or pawn to move, or which can be moved, and his K. is so situated, that not being in check he cannot move to any square without going into check. It is to this interesting point that we now wish to direct the young student's attention.

A distinguished correspondent has favoured us with the following interesting anecdote:—

I am amused at some of the Chess Problems in your Magazine; and they have recalled to my mind one which I should like to lay before your contributors; but unluckily it is like Nebuchadnezzar's dream, which he had forgotten, and wanted his sages to tell him the dream as well as the interpretation. I was playing many years ago with a gentleman who was a little my superior, while another, of perhaps equal skill, was at whist at another table; (we were none of us *great* players, but pretty good as ordinary men.) I was, after a hard struggle, nearly beaten, and beyond all reasonable hopes of giving a check-mate; but from the very curious situation of the men, (I had *two or three pieces left*, and some pawns,) I was in the way to get a *stale-mate;* my adversary remarked it, and so did I and the lookers-on, and he played several moves with great caution, to avoid it; but at last he did give stale-mate. A shout of exultation from the by-standers having called the attention of my other friend, he was told what caused it, and treated the whole matter with contempt, saying that it was a mere accident, a stale-mate never happening but through mere oversight; we all assured him that though it was *usually* so, this was a very remarkable case indeed; but as he was still incredulous, I told him he should *try*, and replaced the men. "Now," said I, "the problem is, to give me check-mate, and avoid stale-mate, of which there is a danger; play." He did so, and forewarned as he was, he gave me the stale-mate the *third* move; then there *was a shout!* I have often regretted since, that I did not immediately take a note of the positions; I have tried to do so since, but have not succeeded. Can any of your contributors? All that is required is to place the men so as to make it difficult to avoid stale-mate.

The very curious point referred to in the above communication sometimes occurs at chess. Indeed, it may be desirable to court a stale-mate, and this is done by the skilful player when the condition of his game is such that not being able to win it he seeks to draw it, either by a perpetual check, or by playing for a stale-mate. We know one player who is so very skilful in getting his adversary to give stale-mate, that he often prefers to determine the game in this manner to winning it, and some of his positions are highly ingenious. At one time when the party who received the stale-mate won the game, this course might have been desirable, but now that a stale-mate always makes a drawn game, such a system of play cannot be defended except for the sake of its ingenuity.

In the annexed examples will be shown: 1. That in some positions it is difficult to avoid giving stale-

* The Laws of Chess are given in *Saturday Magazine*, Vol. XX., p. 247.

mate; 2. That in some positions the first player can compel his adversary to stale-mate him; and 3. That in some positions the second player must either give stale-mate, or lose the game.

In the following position White is to check-mate his adversary in three moves. There appears at first view to be some difficulty in avoiding stale-mate, for if White play either of the obvious moves of B. to K. square, or Kt. to K. B. fifth square, Black is stale-mated. This position is not strictly illustrative of the stale-mate, but we give the problem, in order to show how easily a game, which appears to be decidedly won, may be drawn by an incautious move. Moreover, the problem is one of great ingenuity.

PROBLEM I. *White moving first, is to give check-mate in three moves.*

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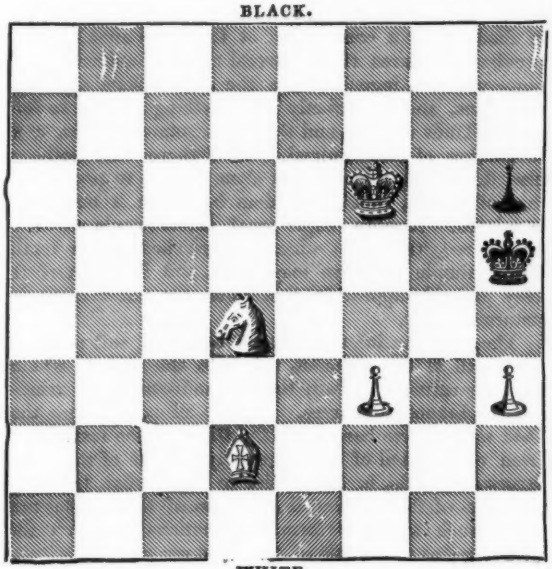

WHITE.

In the next position White appears inevitably to have lost the game. He may, however, draw it.

PROBLEM II. *White having to move forces Black to stale-mate him.*

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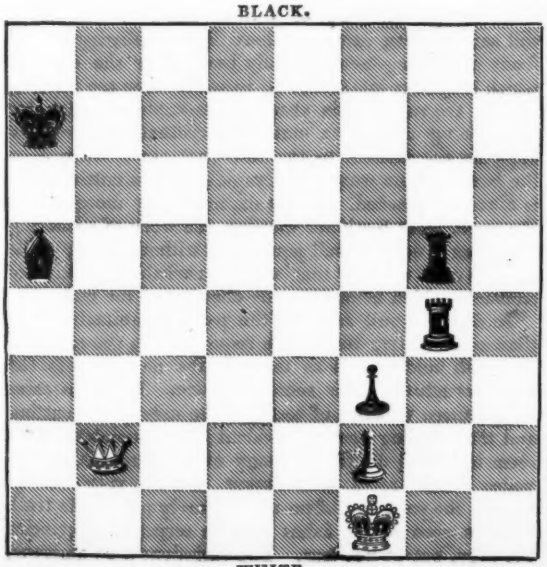

WHITE.

In the next problem White gives Black the alternative of drawing the game by a stale-mate, or of losing it. As chess problems are for the most part illustrations of actual play, a player would, in every case, prefer drawing a game, which he had lost all hopes of winning, to losing it.

The terms of the following position may therefore be thus announced:—

PROBLEM III. *White moving first forces Black to give him stale-mate in two moves.*

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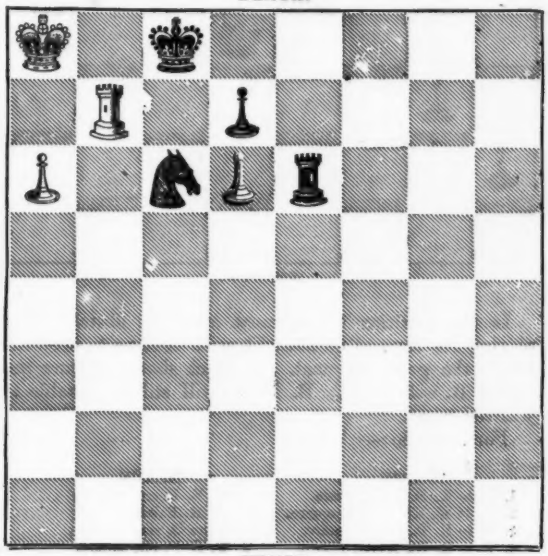

WHITE.

In the next position White sacrifices two Rooks in order to force a stale-mate. If Black refuse to capture one or both of the Rooks, White wins the game, but not easily.

PROBLEM IV. *White moving first forces Black to stale-mate him in three moves.*

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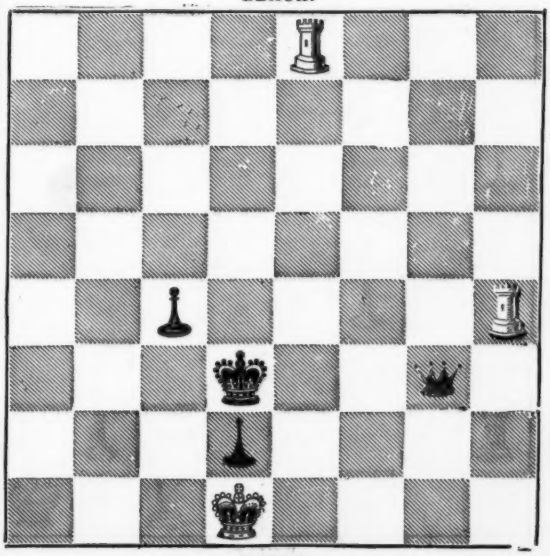

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PROBLEM V. *White may draw the game, whether he move first or not.*

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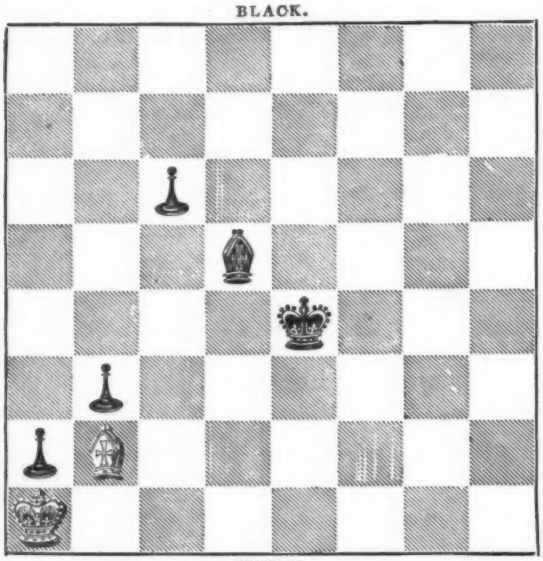

WHITE.

In this position White must carefully abstain from playing his K.; and he must likewise observe to keep his B. on the great diagonal. If Black should capture the White B. with his Q. B. P. he will still be unable to win the game.

For example:—

WHITE.	BLACK.
1. B. to K. B. sixth square.	1. Q. B. P. one square.
2. B. to K. Kt. seventh square.	2. Q. B. P. one square.
3. B. to K. R. eighth square.	3. K. to Q. sixth square.
4. B. to Q. Kt. second square.	4. Q. B. P. one square.
5. B. takes Q. B. P.	

If the Black K. now captures the B. the White K. will be stale-mated; and if Black do not take the B., White by keeping the B. on the great diagonal, obviously draws the game.

PROBLEM VI. The following remarkable position is given by Sarratt, with the remark, that "though the White appears to have lost the game irretrievably, he may, by a skilful manœuvre, draw it."

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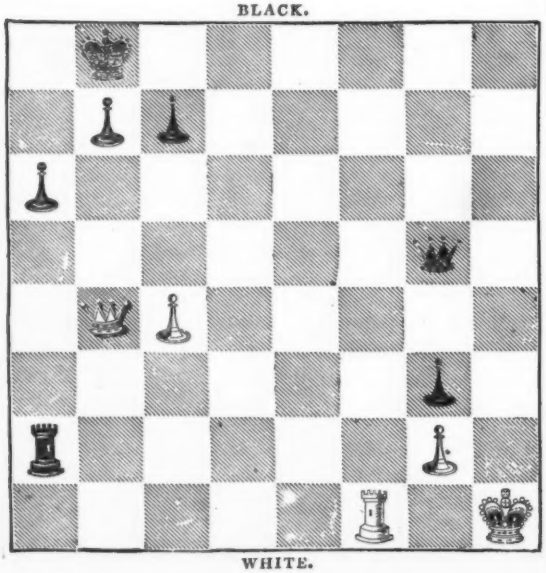

WHITE.

The solution is as follows:—

WHITE.	BLACK.
1. R. to K. B. eighth square, chg.	1. K. to Q. R. second square.
2. R. to Q. R. eighth square, chg.	2. K. takes R.
3. Q. to K. B. eighth square, chg.	3. K. to Q. R. second square.
4. Q. to Q. B. fifth square, chg.	4. Q. takes Q.
5. Is STALE-MATED.	

If at the fourth move Black move his K. to Q. R., you again check at the K. B. eighth square, and if he persist in moving his K., you draw by a perpetual check. You cannot, of course, capture his Q. on account of the mate with his R. If he cover check with Pawn you capture his Q. B. P., and draw by a perpetual check.

ON THE MOUTHS AND TEETH OF ANIMALS.

THE mouth might furnish a subject for a volume, so wisely has it been varied to suit the endless diversities of food, under a conformity, at the same time, to the peculiar structures of the several races of animals. So numerous and ingenious are the mechanisms and the variations, and so perfectly is everything adapted to the several kinds of food, and the construction, powers, and inclination of each animal, that if there were nothing else, this prime organ would alone suffice to prove the fact of design, and the wisdom by which it had been regulated. A more ample proof, indeed, could scarcely be desired, than that which is furnished by the teeth alone, simple as these may seem, and little varied as they probably appear to those who are not versant in natural history.

The singular intermixture of hard and soft parts in the teeth of the elephant, points to the uses to which they are actually applied; they are mill-stones for grinding the branches of trees. And in all cases where the food was to have been hard, the forms of the teeth have been constructed of a similar shape, if not of the same structure; while, in conformity to their office, the construction of the jaw and the position of the muscles are made such as to perform the motions necessary for grinding; as that mode of motion is not allotted, where, as in the fishes very conspicuously, there are no grinding teeth. The sun-fish, indeed, feeding on shell fishes, possesses teeth of a similar kind; while in the lobster, under a singular variation, they are placed within a strong muscular stomach. In birds a substitute for teeth is appointed, by compelling them to swallow small stones, to be set in motion by the still more powerful gizzard.

In the great family of *Glires*, of which the rabbit will serve for an example, there is a peculiarity in the front or cutting-teeth, equally bespeaking the uses for which they were intended, and to which they are applied. And in the rat there is also a remarkable provision for maintaining them in a state of perpetual sharpness, by applying the enamel to the fore part alone, whence, as the bony portion wears most rapidly, a thin cutting edge is always preserved. In the ox, and many more, where the upper front teeth are wanting, the work of gathering the grass is equally well performed without them; while in this case we find that very remarkable provision of stomachs which belongs to the chewing of the cud.

In order to pull asunder the parts of animals, more than mere cutting-teeth were required. In the cat tribe the teeth hold as well as tear: in the dog there is the same structure, under some variation. Man possesses all the three varieties of teeth. The uses of the cutting and the grinding ones are evident; but the pointed ones seem to belong to that analogy of structure which pervades whole races of different animals very widely, though the parts are of no use. Purely prehensile teeth are best seen in the fishes and the serpents; they seize the prey, but do not tear. The variations are numerous,

and often very beautiful; especially so in the shark, where they form that platform of hooks so well known. In other fishes they are often such as to resemble a wool-card; if sometimes fixed in the bone, they are, in other cases, attached to a membrane, being occasionally also provided with muscles, so as to be capable of temporary erection. They occur, further, not in the jaws alone, but in the palate, and even in the throat; so as to ensure the passage of the prey downwards and to prevent its return. In the shark tribe, there is a perpetual succession of young ones, enlarging and advancing from behind, as the front ones wear out.

Passing from the teeth to the mouth itself we find there is system within system.

Such, in the quadrupeds having two jaws furnished with teeth, is the breadth in front, in the ox and the horse, compared with the narrowness in the dog and the wolf: the great length of jaw, in the fox and others, renders the mouth a powerful forceps for the detention or killing of other animals. In the cat race, the shortness is compensated by the greater length of the teeth, and by the talons; so perfectly is everything calculated. In the hog, the variation is even more striking; where the mouth, appearing at first as if obstructed by the protrusion of the snout, forms a scoop, following in the track which the former has ploughed for it, thus seizing the roots which have been loosened or laid bare. In the mole, the singular shape and sharpness of the snout, while it forms a species of wedge, allows the animal to pursue its active prey into that hole which it forms so rapidly. The rabbit, in its own large family of nibblers; the squirrel, using its teeth for a very different purpose; the shrew, the ferret, the weasel, and the vampire, sucking rather than eating; the elephant, and many more, will afford further illustrations. The tongue was equally intended to secure the prey in the ant-eater, and in the chameleon; but a slow movement was sufficient in the one case, and a rapid one was necessary in the other. They are given accordingly; while the camel, being to feed on those thorny plants of the desert which scarcely any other animal will touch, is provided against injury from them, by a tough cartilaginous mouth.

As the heads of birds were to form a solid of small resistance, it is difficult to see what other, and sufficient mouth, they could have had; since it must also perform many of the offices of a hand, in constructing the nest, in extricating grain, in cutting, in picking up minute seeds, in extracting objects from small apertures, and in much more.

The basis of this form of mouth may be taken from the gallinaceous birds, and from that numerous and common race termed *Passeres*. In the domestic fowl and the canary bird, it is as simple a mouth as it is a hand; having nothing to do but to pick up food, arrange the nest, and prune the feathers; though it is also a powerful weapon of offence and defence. But in this simplest of bills there are many varieties, according to the peculiar purposes required. The black-cock and the pheasant, the bullfinch and the lark, are examples which I need not extend.

The food of an extensive tribe, termed *Grallæ*, consists of worms or larvæ, which reside deep in the earth, and would have been unattainable by the bills of the preceding birds. It has therefore been lengthened in the curlew, the woodcock, the plovers, and others, while here also is a system of variation in the lengths, according to the wants, from the curlew which extracts the deep worm of the sands, to the ring-dotterel which desires to go no deeper than the shallow hole of the jumping talitrus. The end of this engine is not horny, and is provided with nerves; so that it becomes a sensible finger as well as a hand and a mouth. The nerves are large, beyond all apparent necessity; utterly disproportioned to a nerve of touch in any other animal body. It was necessary that the point of the bill should be tough and firm; and the magnitude of the nerves forms a compensation for this.

The flat-billed birds, or shovellers, present another variation, with varieties under it. The convenience of this form, in the swan and the goose, feeding on aquatic plants and grass, is obvious. In the duck, whose food is found in subaquatic worms, among other things, the variation is mechanically simple, but not so in the action. The materials are mixed up with mud and water, and too minute to be separated by picking; whence the process is rendered a more sweeping one. The principle of the mouth is similar to that of the same engine in a whale. The teeth form a strainer; the highly sensible bill discovers the mud which is worth the labour; and an equally sensible tongue aids in separating what is wanted, and in rejecting the rest.

In the insect-eating birds, of small bills, there is a variation for a special purpose, which belongs rather to the true mouth than the bill. The swallows and the night-hawk feeding on flies, without picking, required no bill for that end. There is therefore a wide mouth, into which the prey may be said to fly, while the bill is necessary for constructing the nests, feeding the young, and pruning the feathers; as it also serves to complete the form necessary for penetrating the air.

The birds of prey offer another leading variation; the change from the straight beak is as simple as it is effectual for its ends. The purpose was to hold and to tear the flesh of animals; or, like the cormorant, to seize and swallow serpents, as that does fishes. Attending to the principle of incurvation in the bill, I may join with these the bills of the parrot tribe, forming a hand for climbing and holding, under the power of motion in the upper mandible, while the under one is a scoop for feeding on fruits, as it is also a cutting tool. Here also I may notice the construction of the throat in the Indian stork, through which air is admitted to the lungs when the mouth is stopped by the bulk of the prey.

The comprehensive bills of the stork, heron, crane, and others, are intended for seizing and swallowing large fishes, or frogs, or serpents: and under those, the bill of the cormorant is varied by means of a hook, serving the purpose of detention, as it is, partially, by that extensibility of the lower part of the mouth which becomes the noted pouch in the pelican. And in these voracious birds, we must also remark that construction which prevents the epiglottis from being closed, and the animal suffocated, though the fish which it has swallowed occupies the whole throat, and part of the mouth, sometimes even to protruding beyond it. In the raven, the sharpness, capacity, and strength of the bill, adapt it to that well-known prey which does not require to be detained. The cross-bill has often been pointed out among the remarkable instances of invention; while the perfect adaptation of this instrument to its office, in opening the cones of the fir, is equalled by the widely-different forceps of the spoon-bill, where the great deviation from ordinary rules is more remarkable than even the adaptations of this, literally, pair of tongs, to the catching of frogs.

The tongue of the woodpecker departs from the general principle by which this organ in birds has been constructed, because this family has been destined to feed on insects which it must extract out of deep holes; and it is therefore a sort of spear, provided with barbs. The muscles by which it is protruded are peculiarly formed, and coiled round the trachea in a very ingenious manner, that they may execute this office with an adequate force. The bill is wedge-shaped, and provided with a central ridge for the sake of strength; and that of the humming-birds is a rival to the proboscis of the butterfly and the bee.

The mouth of the whale offers an instance, equally, of

ingenuity and foresight. Comparing it to human inventions, it is a shrimping-net; while no one could have divined that the largest animal in creation, should have been commanded to seek its food among the smallest; that millions should be daily destroyed to support one life. Had the whale been condemned to swallow all the water which it must draw into its mouth, together with its prey, great inconveniences would have followed. To prevent this, it is provided with a singular piece of machinery, consisting of a series of flat hoops, meeting from both sides of the mouth into arches, and carrying ranges of bristles, which form a strainer, and also a kind of net. The water is thus rejected, and the mass of shrimps reaches the throat.

In the grey mullet, a principle resembling that in the hog is adopted; a tough snout ploughs the sand for worms, and the mouth follows.

In the system for the mouth in insects, I shall simply note a few remarkable variations. One of these constructions is in the dragon-fly, the most tremendous of the animals of prey, if the insects which it devours can see it as we should see a beast of prey, equally disproportioned to ourselves, and equally powerful. The form of the jaws ought, however, to be examined, since description is comparatively unavailing. The mouths of the marine Crustaceæ are also accessible, and present very complicated machinery, equally demanding and deserving examination; while if the adaptation to the uses is by no means clear in these, it is very obvious in the former animal, as it could not be more perfect.

In the sucking insects, forming one principal division of mouths, the designs are as perfect, under many varieties, as the mechanisms are admirable in the invention and the execution. In the butterfly tribe it is a long proboscis, of a very peculiar anatomy, because the food lies in deep and narrow tubes; it is shorter when the animal is so small that it can enter the tube, as in the bee, as it is also differently constructed. In the house-fly it is a muscular trunk, not unlike that of the elephant, provided with two lips, because the food is superficial; offering another instance of the adaptation of one mechanical contrivance to two very different animals. If there is a hard substance to be first penetrated, the trunk is formed accordingly. In the various gnats and others, the penetrating apparatus is often exceedingly complex, consisting of lancets, amounting to five in the common gnat, of which some are also serrated.

No description can convey an adequate idea of the various mechanical contrivances in the mouths that are used for sawing, cutting, biting, breaking, and grinding, and in those which possess forceps, to detain; while many different tools, as they may truly be called, are often united in one insect. He who desires to understand them, must examine them, as he can easily do in the larger spiders, in caterpillars, grasshoppers, beetles, and in the mole cricket, cock-roach, ant, and hornet, with us; and the mantis, phasma, locust, and others sufficiently common in collections.

[Abridged from MACCULLOCH's *Proofs and Illustrations of the Attributes of God, &c.*]

THE MASQUE,

OR MASK, was a species of theatrical drama much in favour in the courts of princes during the sixteenth and seventeenth centuries, in the latter particularly in England. They are the most brilliant and imaginative among the entertainments of our ancestors, and are traced, with much probability, to the religious processions of the Church of Rome, in which various scriptural characters were represented, with some occasional tinge of burlesque solemnity. The masque, or as we should rather call it, in its infancy, the *masquerade*, in order to distinguish it from the species of drama into which it ultimately ripened, early became a prevalent fashion among the princes and nobles of Europe. The court of Henry the Eighth presented many of these gorgeous spectacles. According to Hollinshed's *Chronicle*, the first masque performed in England was in 1510, in the first year of Henry's reign. In 1530 a masque was performed at Whitehall, "consisting of music, dancing, and a banquet, with a display of grotesque personages and fantastic dresses." Shakspeare, and Beaumont and Fletcher, have frequently introduced masques into their plays. The English masques bear some resemblance to operas, as they are in dialogue, performed on a stage, ornamented with machinery, dances, and decorations, and have always music, vocal and instrumental. The parts of the masques of the sixteenth and seventeenth centuries were usually represented by the first personages of the kingdom; if at court the king, queen, and princes of the blood often performed in them.

James the First carried to its height the glory of the masque. It had hitherto consisted of music, dancing, gaming, a banquet, and a display of grotesque personages and fantastic dresses; but it now assumed a higher character, and became "married to immortal verse." Previously "their chief aim," says Warton, "seems to have been to surprise by the ridiculous and exaggerated oddity of the visors, and by the singularity and splendour of the dresses. Every thing was out of nature and propriety. Frequently the masque was attended with an exhibition of some gorgeous machinery, resembling the wonders of a modern pantomine; for instance, in the great hall of the palace, the usual place of performance, a vast mountain covered with tall trees rose suddenly, from whose opening caverns issued hermits, pilgrims, shepherds, knights, damsels, and gipsies, who, being regaled with spices and wine, danced a *morisco*, or *morris dance*. They were again received into the mountain, which, with a symphony of rebecs and recorders, closed its caverns, and, tumbling to pieces, was replaced by a ship in full sail, or a castle besieged."

This glittering chaos was reduced to order by the genius of Ben Jonson; not that he was the first who united poetry with music, dancing, and scenery, but he was more largely employed than any other poet of his time in this branch of the drama. In his masques, along with much that is frigid, wearisome, and pedantic, may also be found much fine poetry. The masques, though they make a great show on paper, were probably not a little defective in exhibition.

Sir Dudley Carleton, an eye-witness, writes to Winwood as follows:—

At night we had the queen's maske in the banqueting-house, or rather the pageant. There was a great engine at the lower end of the room, which had motion, and in it were the images of sea-horses, and other terrible fishes, which were ridden by Moors. The indecorum was, that there was all fish and no water. At the further end was a great shell, in form of a skallop, wherein were four seats, on which sat the queen and her ladies. Their apparel was rich, but too light and courtesan-like for such great ones. Instead of vizzards, their faces, and arms up to the elbows, were painted black, which was disguise sufficient, for they were hard to be known; but it became them nothing so well as their red and white; and you cannot imagine a more ugly sight than a troop of lean-faced Moors.

Milton's *Comus* is the most beautiful of the productions that bear the name of masques. This exquisite specimen of lofty thought, beautiful imagery, and splendid versification, is said by Gifford to be defective as a masque, and by D'Israeli, not to be a masque at all, referring probably to the deficiency of music and machinery; but Warton says with truth, "the intrinsic graces of its exquisite poetry disdained assistance, and whether *Comus* be or be not deficient as a drama, I am of opinion that our author here is inferior only to his own *Paradise Lost*.

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